

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. (Previously Presented) A medical implant to seal a lumen or void in a body of a patient comprising:

a sterilized pharmaceutically acceptable covalently crosslinked hydrogel polymerized from at least one synthetic hydrophilic polyethylene glycol macromer,

the hydrogel having a substantially less than equilibrium level of hydration for undergoing a volumetric expansion of at least about 50% after swelling with physiological fluid and

having a size and a swellability to press against tissue surrounding the lumen or void upon swelling to seal and thereby occlude the lumen or void upon swelling from exposure to a fluid from the body,

wherein the hydrogel, at the substantially less than equilibrium level of hydration, has a shape selected from the group consisting of a rod, a pellet, a bead, irregularly shaped pieces, and a sheet rolled from one edge to another to form a roll, with the hydrogel shape allowing for direct administration into a body by passage through a catheter or hollow needle having an inner diameter of no more than about 1.5 mm.

2. (Original) The implant of claim 1 wherein the volumetric expansion is between about 50% and about 700%.

3. (Original) The implant of claim 1 wherein the volumetric expansion is between about 100% and about 500%.
4. (Original) The implant of claim 1 wherein the volumetric expansion is between about 150% and about 400%.
5. (Original) The implant of claim 1 wherein the hydrogel is biodegradable.
- 6-10. (Cancelled)
11. (Original) The implant of claim 1 wherein the fluid from the body is blood.
- 12.-19. (Cancelled)
20. (Original) The implant of claim 1 wherein the lumen or void is created by a biopsy procedure.
21. (Original) The implant of claim 1 wherein the lumen or void is created by a needle.
22. (Original) The implant of claim 1 wherein the lumen or void is a member of the group consisting of a naturally occurring body passageway, a fallopian tube, an arteriovenous malformation, and a bone canal.
23. (Cancelled)
24. (Original) The implant of claim 1 wherein the macromer, before polymerization, comprises a functional group polymerizable by a polymerization reaction that is a member of the group consisting of free radical, condensation, anionic, cationic.

25. (Previously Presented) The implant of claim 1 wherein the macromer is polymerized by an electrophile-nucleophile reaction.

26.-36. (Cancelled)

37. (Original) The implant of claim 1 wherein the hydrogel further comprises a therapeutic bioactive molecule.

38. (Original) The implant of claim 37 wherein the therapeutic bioactive molecule is a member of the group consisting of peptides, antibiotics, antitumor agents, hemostatics, and analgesics.

39. (Original) The implant of claim 1 wherein the hydrogel further comprises a contrast agent.

40. (Original) The implant of claim 39 wherein the contrast agent is a radio-opaque contrast agent.

41-72. (Cancelled)

73. (Previously Presented) The implant of claim 1 wherein the shape is the sheet rolled from one edge to another to form a roll .

74. (Previously Presented) The implant of claim 1 wherein the shape is the pellet.

75. (Previously Presented) The implant of claim 1 wherein the shape is the bead.

76. (Previously Presented) The implant of claim 1 wherein the shape is the rod.

77. (Previously Presented) The implant of claim 1 wherein the shape is the irregularly shaped pieces.

Please add the following new claims:

78. (New) A medical implant to seal a lumen or void in a body of a patient comprising:

a sterilized pharmaceutically acceptable covalently crosslinked hydrogel polymerized from at least one synthetic hydrophilic polyethylene glycol macromer,

the hydrogel having a substantially less than equilibrium level of hydration for undergoing a volumetric expansion of at least about 50% after swelling with physiological fluid and

having a size and a swellability to press against tissue surrounding the lumen or void upon swelling to seal and thereby occlude the lumen or void upon swelling from exposure to a fluid from the body,

wherein the hydrogel, at the substantially less than equilibrium level of hydration, has a shape selected from the group consisting of a rod and a sheet rolled from one edge to another to form a roll, with the hydrogel shape allowing for direct administration into a body by passage through a catheter or hollow needle having an inner diameter of no more than about 1.5 mm.

79. (New) A medical implant to seal a lumen or void in a body of a patient comprising:

a sterilized pharmaceutically acceptable covalently crosslinked hydrogel polymerized from at least one synthetic hydrophilic polyethylene glycol macromer,

the hydrogel having a substantially less than equilibrium level of hydration for undergoing a volumetric expansion of at least about 50% after swelling with physiological fluid and

having a size and a swellability to press against tissue surrounding the lumen or void upon swelling to seal and thereby occlude the lumen or void upon swelling from exposure to a fluid from the body,

wherein the hydrogel, at the substantially less than equilibrium level of hydration, has a shape selected from the group consisting of a rod and a sheet rolled from one edge to another to form a roll, with the rod or roll outer diameter being no more than about 1.5 mm.